



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/524,732	02/16/2005	Hiroshi Shimizu	MAD-C530	1605

7590

08/22/2006

Lorusso Loud & Kelly
3137 Mount Vernon Avenue
Alexandria, VA 22305

EXAMINER

BOTTORFF, CHRISTOPHER

ART UNIT

PAPER NUMBER

3618

DATE MAILED: 08/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/524,732	Applicant(s) SHIMIZU, HIROSHI	
	Examiner Christopher Bottorff	Art Unit 3618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 February 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 3-6 and 8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 3-6 and 8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 February 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>3/10/05</u> . | 6) <input type="checkbox"/> Other: _____ |

Ku

DETAILED ACTION

The preliminary amendment filed February 16, 2005 has been entered.

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

The information disclosure statement (IDS) submitted on March 10, 2005 was considered by the examiner.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3-6, and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Higasa et al. US 5,465,806.

Higasa et al. disclose a driving device of an electric car having four wheels 2a, 2b, 3a, 3b. See Figures 1 and 2. Driving motors 21a, 21b, 22a, 22b are placed in all of the wheels and the motors are capable of driving and regenerative braking. See Figures 1 and 2; column 5, lines 16-22; and column 6, lines 49-55.

The additional limitations of the claims define the device in terms of a selecting function and intended use. However, it is well settled that claims directed to apparatus must be distinguished from the prior art in terms of structure rather than function. *In re Danly*, 120 USPQ 528, 531 (CCPA 1959). “[A]pparatus claims cover what a device *is*, not what it *does*.” *Hewlett-Packard Co. v. Bausch & Lomb Inc.*, 15 USPQ2d 1525, 1528 (Fed. Cir. 1990). (emphasis in original). Furthermore, claims containing a “recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus” if the prior art apparatus teaches all of the structural limitations of the claims. *Ex parte Masham*, 2 USPQ2d 1647 (Bd. Pat. App. & Inter. 1987). Higasa et al. disclose all of the claimed structural features and, since the additional limitations define the device in terms of a selecting function and intended use, the additional limitations do not distinguish the present invention over Higasa et al. In addition, although a device may be defined in terms of function when the claims invoke the limiting protection of 35 USC 112, sixth paragraph, the present claims do not invoke 35 USC 112, sixth paragraph, and do not use “means for” terminology to create a presumption that 35 USC 112, sixth paragraph, is invoked.

Moreover, the front and rear wheels of Higasa et al. function full-time as both drive wheels and regenerative braking wheels. See column 6, lines 49-55, and column 5, lines 16-22. Therefore, all of the wheels drive and brake at the specific instances recite in the claims. That is, a plurality of the wheels are selectable so as to serve as drive wheels or regenerative brake wheels in accordance with traveling circumstances

Art Unit: 3618

of the car. See column 6, lines 49-55, and column 5, lines 16-22. Upon braking, all of the wheels are selectable so as to serve as the regenerative brake wheels. See column 5, lines 16-18. When turning, in particular, the radially outer wheels are selectable so as to serve as the drive wheels and the radially inner wheels are selectable so as to serve as the regenerative brake wheels. See column 4, lines 39-47, and column 5, lines 7-15. With all of the wheels selectable as full-time drive wheels, the rear wheels are selectable so as to serve as the drive wheels upon traveling on a level road, an upslope or any other road configuration, and the front wheels are selectable so as to serve as the drive wheels upon traveling on a downslope or any other road configuration.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 6 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Higasa et al. US 5,465,806 in view of Burdock et al. US 6,688,612.

In regard to claim 6, although the intended use of suspension strokes to determine traveling circumstances does not distinguish the present invention over Higasa et al., Burdock et al. also teach the desirability of using strokes of a suspension to determine information regarding traveling circumstances. See the abstract and

Art Unit: 3618

column 5, lines 16-23. From the teachings of Burdock et al., using suspension strokes to determine traveling circumstances in the car of Higasa et al. would have been obvious to one of ordinary skill in the art at the time the invention was made. This would utilize available information that indicates the nature of the terrain and the manner in which the vehicle is handling, which would aid the device in controlling the car.

Conclusion

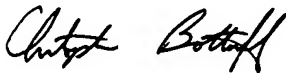
The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Eisele et al., Scaduto, Hara et al., and Tsukamoto et al. disclose electric vehicle driving devices. Guertin and Lindholdt disclose vehicle driving devices that function with front wheel and rear wheel drive on upslopes and downslopes.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher Bottorff whose telephone number is (571) 272-6692. The examiner can normally be reached on Mon.-Fri. 7:30 a.m. - 4:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Ellis can be reached on (571) 272-6914. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3618

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

A handwritten signature in black ink, appearing to read "Christopher Bottorff", written in a cursive style.

Christopher Bottorff